

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by **Bouchard (5274305)**.

Regarding **claim 1**, Bouchard clearly shows and discloses a fluorescent lamp comprising a glass discharge vessel (70, col. 6, line 1) in which an ionizable and vaporizable filling (mercury vapor, col. 5, line 53) is present, which discharge vessel is on two sides provided with a tubular end portion including a glass stem (S, as pointed out at fig. 4 below), wherein an exhaust tube (86) extends axially outwardly from said stem for supplying and/or discharging gases during production of the lamp, wherein a main electrode (72) extends axially inwardly through the stem for generating and maintaining a discharge in the discharge vessel, and wherein the lamp comprises means including an auxiliary electrode (heater 78) for controlling the pressure of said filling in the vapor phase, despite changes in temperature thereof, characterized in that said auxiliary electrode (78) is located on at least one end portion for generating and maintaining an auxiliary discharge between the main electrode and the auxiliary electrode (figs. 4-5, col. 6, lines 1-12, 29-37).

Regarding **claim 2**, Bouchard clearly shows and discloses that the auxiliary electrode (88) is located near an end of the exhaust tube (84) facing away from the discharge vessel (70) for generating and maintaining the auxiliary discharge through the exhaust tube acting as a discharge path between the main electrode (72) and the auxiliary electrode (88) (fig. 5, col. 6, lines 29-37).

Regarding **claim 7**, Bouchard clearly shows and discloses that the electrodes (72 & 78) are connected to a dimming circuit (fig. 3, col. 5 lines 34-46, col. 6 lines 11-13).

Regarding **claim 8**, Bouchard clearly shows and discloses a method for manufacturing a fluorescent lamp, wherein a glass discharge vessel (70, col. 6, line 1) is on two sides provided with a tubular end portion including a glass stem (S, as pointed out at fig. 4 above), wherein a main electrode (72) is fitted to extend axially inwardly through the stem for generating and maintaining a discharge in the discharge vessel, wherein an exhaust tube (86) is fitted to extend axially outwardly from said stem, through which exhaust tube the discharge vessel is filled with an ionizable and vaporizable filling (mercury vapor, col. 5, line 53), and wherein the lamp is provided with means including an auxiliary electrode (heater 78) for controlling the pressure of said filling in the vapor phase, despite changes in temperature thereof, characterized in that said auxiliary electrode (78) is fitted on at least one end portion for generating and maintaining an auxiliary discharge between the main electrode and the auxiliary electrode (figs. 4-5, col. 6, lines 1-12, 29-37).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bouchard (5274305)**.

Regarding **claims 3, 4, and 5**, Bouchard clearly shows and discloses the claimed invention.

However, Bouchard fails to exemplify that the auxiliary electrode is fed by a DC current, that the DC current can be varied in order to regulate the pressure of said filling in the vapor phase, and that the DC current can be varied dependent on an temperature on the cathode-side of the auxiliary electrode as measured by means of a thermo-couple, detected change in light output, color change or burner voltage.

It is considered within the capabilities of one skilled in the art to provide a DC driving current as an alternative driving method for the device as an obvious matter of design engineering.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a DC driving current as an obvious matter of design engineering.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bouchard (5274305)**, in view of **Frech (2353660)**.

Regarding **claim 6**, Bouchard clearly shows and discloses the claimed invention.

However, Bouchard fails to exemplify that the auxiliary electrode is connected to a passive transformer circuit comprising a coil which is electro-magnetically coupled to coils which are connected to the pole wires of the main electrode.

In the same field of endeavor, Frech clearly shows and discloses a fluorescent lamp wherein an auxiliary electrode is connected to a passive transformer circuit (P) comprising a coil (coil form transformer 34) which is electro-magnetically coupled to coils (coils from the ballast transformer 14) which are connected to the pole wires of the main electrode (fig. 5, col. 8, lines 8-14), in order to secure a desired auxiliary voltage between electrodes.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a passive transformer circuit comprising coil which is electro-magnetically coupled to coils which are connected to the pole wires of the main electrode as taught by Frech in the device of Bouchard, in order to secure a desired auxiliary voltage between electrodes.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSE M. DIAZ whose telephone number is (571)272-9822. The examiner can normally be reached on 7:00 - 5:00 EST Monday-Thursday; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/José M. Díaz/  
Examiner, Art Unit 2879